

IN THE CLAIMS:

1. (Previously Presented) A genetic construct comprising:  
a conditionally lethal first gene adapted for expression in a plant cell; and  
a second gene adapted for expression in a plant cell, said second gene, when expressed in a plant, conferring a novel trait on said plant.
2. (Previously Presented) The construct of claim 1, wherein the second gene is heterologous to said plant cell.
3. (Previously Presented) The construct of claim 2, wherein the heterologous gene codes for a pharmaceutical product.
4. (Previously Presented) The construct of claim 2, wherein the heterologous gene codes for an industrially useful enzyme.
5. (Previously Presented) The construct of claim 2, wherein the heterologous gene codes for rennin and/or hirudin.
6. (Previously Presented) The construct of claim 1, wherein the second gene, when expressed, changes the phenotype of the plant.

7. (Previously Presented) The construct of claim 1, wherein the second gene, codes for a protein, peptide or anti-sense RNA.
8. (Previously Presented) The construct of claim 1, wherein the second gene codes for an input or output trait.
9. (Previously Presented) The construct of claim 1, wherein the conditionally lethal gene is an oncogene.
10. (Previously Presented) The construct of claim 1, wherein the conditionally lethal gene is oncogene 2 from *Agrobacterium tumefaciens*.
11. (Previously Presented) The construct of claim 1, wherein the conditionally lethal gene is expressed in response to chemical or stress.
12. (Previously Presented) The construct of claim 1, wherein the conditionally lethal gene is lethal only when an exogenous substance is applied.
13. (Previously Presented) The construct of claim 1, wherein the conditionally lethal gene is lethal when it is expressed and no exogenous substance need be applied.
14. (Previously Presented) The construct of claim 1, wherein the conditionally lethal gene is

oncogene 4, an oncogene under the control of a promoter of a low temperature inducible gene from Arabidopsis, the gene coding for methoxinine dehydrogenase, the gene coding for rhizobitoxine synthase, or the gene coding for phosphonate monoester hydrolase.

15. (Previously Presented) The construct of claim 12, wherein the conditionally lethal gene is the gene coding for methoxinine dehydrogenase, the gene coding for rhizobitoxine synthase, or the gene coding for phosphonate monoester hydrolase.

16. (Previously Presented) The construct of claim 12, wherein the conditionally lethal gene is the gene coding for methoxinine dehydrogenase or the gene coding for rhizobitoxine synthase.

17. (Previously Presented) The construct of claim 1, wherein the promoter of said conditionally lethal first gene is inducible.

18. (Previously Presented) The construct of claim 1, wherein the promoter of said conditionally lethal first gene is tissue-specific.

19. (Previously Presented) The construct of claim 1, wherein the promoter of *said* conditionally lethal first gene is constitutive.

20. (Currently Amended) A plant transformation vector comprising the genetic construct of claim 1 ~~any one of claims 1 to 19~~.

21. (Currently Amended) A plant comprising the genetic construct of claim 1 ~~any one of claims 1 to 19.~~

22. (Currently Amended) A plant comprising the genetic construct of claim 11 ~~any one of claims 11, 12, 13 and 15.~~

23. (Previously Presented) A plant transformed with the vector of claim 20.

24. (Currently Amended) The plant of claim 21 ~~any one of claims 21 to 23~~ which is Brassica.

25. (Previously Presented) The Brassica plant of claim 24 which has altered oil composition.

26. (Previously Presented) The Brassica plant of claim 25 which has high oleic, low linoleic acid genotype.

27. (Previously Presented) The Brassica plant of claim 26 which is variety AG-019 or derivatives thereof.

28. (Currently Amended) A method for producing a transgenic plant which can be removed from a growing environment, comprising:

transforming a plant cell with the genetic construct or vector of claim 1 ~~any one of claims 1 to 20;~~ and

regenerating the plant cell to a whole plant.

29. (Previously Presented) A method for removing the plant of claim 22 from a growing environment, comprising application of a chemical agent which is converted to a phytotoxic agent by a product of a conditionally lethal gene, wherein the agent is applied at a level which, upon conversion by the gene product, results in a sub-lethal level of converted substrate.

30. (Previously Presented) A method for visual identification of the plant of claim 22, comprising:

application of a chemical agent which is a substrate of the product of the conditionally lethal gene, wherein the agent is applied at a level which, upon conversion by the gene product, results in a sub-lethal level of converted substrate;

visually identifying the plants which manifest the sub-lethal phenotype.

31. (Currently Amended) The method of claim 29 ~~or claim 30~~ wherein the genetic construct or vector comprises oncogene 2 as the conditionally lethal gene, and wherein the chemical agent is an indoleamide or a related derivative.

32. (Previously Presented) The method of claim 31 wherein the indoleamide is naphthalene acetamide.

33. (Previously Presented) A method for selecting a transgenic plant of claim 22, comprising:

application of a chemical agent which is a substrate for the product of the conditionally lethal gene, wherein the agent is applied at a level which, upon conversion by the gene product, results in a sub-lethal level of converted substrate;

visually identifying the plants which manifest the sub-lethal phenotype; and

allowing the identified plants to recover into normal plants in the absence of the chemical agent.

34. (Previously Presented) The method of claim 33 wherein the genetic construct or vector comprises oncogene 2 as the conditionally lethal gene, and wherein the chemical agent is an indoleamide or a related derivative.

35. (Previously Presented) The method of claim 34 wherein the indoleamide is naphthalene acetamide.

36. (Currently Amended) The method of claim 29 ~~any one of claims 29 to 35~~ wherein the plant is Brassica.

37. (Previously Presented) The method of claim 36 wherein the Brassica plant has altered oil composition.

38. (Previously Presented) The method of claim 37 wherein the Brassica plant has high oleic acid, low linoleic acid content.

39. (Previously Presented) The method of claim 38 wherein the Brassica plant is variety AG-019 or derivatives thereof.

40. (Previously Presented) A method for visual identification of a germinating seed or plant embryo comprising oncogene 2 as a transgene, comprising:

culturing the seed or embryo on a medium containing an indoleamide or a related derivative; and

visually identifying the germinated seed or embryo which manifests the phenotype.

41. (Previously Presented) A method for selecting a germinating seed or plant embryo comprising oncogene 2 as a transgene, comprising:

culturing the seed or embryo on a medium containing an indoleamide or a related derivative;

visually identifying the germinated seed or embryo which manifest the phenotype; and

transferring the identified seed or embryo to a medium without indoleamide;

thereby obtaining the germinating seed or plant embryo comprising oncogene 2 as a transgene.

42. (Currently Amended) The method of claim 40 or 41 wherein the medium of step (a) contains an auxin transport inhibitor and the medium of step (b) does not contain an auxin transport inhibitor.

43. (Currently Amended) The method of claim 40 ~~any one of claims 40 to 42~~, wherein the inhibitor is N-(1-naphthyl)phthalamic acid; 2,3,5- triiodobenzoic acid; 9-hydroxyfluorene-9-carboxylic acid; erythrosine; eosine; fluorescein; semicarbazone; or ethanphon.
44. (Currently Amended) The method of claim 40 ~~any one of claims 40 to 43~~, wherein the indoleamide is naphthalene acetamide and the inhibitor is naphthylphthalamic acid.
45. (Currently Amended) The method of claim 40 ~~any one of claims 40 to 44~~, wherein the seed or embryo is Brassica.
46. (Previously Presented) The method of claim 45, wherein the Brassica seed or embryo has altered oil composition.
47. (Previously Presented) The method of claim 46, wherein the Brassica seed or embryo has high oleic acid, low linoleic acid content.
48. (Previously Presented) The method of claim 47, wherein the Brassica seed or embryo is variety AG-019 or derivatives thereof.
49. (Previously Presented) A method for selecting a transgenic plant cell comprising:  
transforming a plant cell with a genetic construct or vector comprising an oncogene adapted for expression in a plant cell;



exposing said plant cell to a formula comprising a benign auxin derivative of a plant hormone, which *is* converted into an active hormone by the product of the oncogene, and an auxin transport inhibitor;

culturing the cell to form a group of cells;

visually identifying the group of cells which manifests the phenotype associated with the active hormone; and,

allowing the identified group of cells to recover in the absence of the derivative.

50. (Previously Presented) The method of claim 49, wherein the oncogene is oncogene 2.

51. (Previously Presented) The method of claim 49, wherein the benign derivative is naphthalene acetamide and the inhibitor is naphthylphthalamic acid.

52. (Currently Amended) The method of claim 49 ~~any one of claims 49 to 51~~, wherein the plant cell is Brassica.

53. (Previously Presented) The method of claim 52 wherein the Brassica plant cell has altered oil composition.

54. (Previously Presented) The method of claim 53 wherein the Brassica plant cell has high oleic acid, low linoleic acid content.

55. (Previously Presented) The method of claim 54 wherein the Brassica plant cell is variety AG-019 or derivatives thereof.

56. (Previously Presented) A method for transforming Brassica napus, comprising inclusion of naphthalene acetic acid in the media at the callusing and recovery step, wherein the Brassica napus has altered oil profile.

57. (Previously Presented) The method of claim 56 wherein the Brassica napus is variety AG-019.

58. (Previously Presented) A plasmid selected from the group consisting of: pJH121, pJH122, pJH123, pJH125, pJH126, and pJH130.